

RECREATIONAL INTERPRETATIONS
Grand Forks County, North
Dakota

The soils of the survey area are rated in the following tables according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

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Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

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(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
2: PARNELL-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
3: VALLERS-----	Severe: wetness	Moderate: percs slowly wetness	Severe: wetness	Moderate: wetness	Moderate: wetness
4: ARVESON-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
8: COLVIN-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
10: LAMOURE-----	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness
CHANNEL-----	---	---	---	---	---
11: DOVRAY-----	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding
12: SVEA-----	Slight	Slight	Moderate: small stones	Slight	Slight
13B: BARNES-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
15D: BUSE-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
15E: BUSE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
16: LALLIE-----	Severe: excess salt ponding	Severe: excess salt ponding	Severe: excess salt ponding	Severe: ponding	Severe: excess salt ponding
17: VANG-----	Slight	Slight	Slight	Slight	Slight

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
19: HAMERLY-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly slope wetness	Moderate: wetness	Moderate: wetness
23: CRESBARD-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
23B: BARNES-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
CRESBARD-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
25: OVERLY-----	Slight	Slight	Slight	Slight	Slight
26: BEARDEN-----	Moderate: wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness
OVERLY-----	Slight	Slight	Moderate: slope	Slight	Slight
29: VELVA-----	Severe: flooding	Slight	Moderate: flooding slope	Slight	Moderate: flooding
30: WALSH-----	Slight	Slight	Moderate: small stones	Slight	Slight
35: RAUVILLE-----	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness
39: VALLERS-----	Severe: excess salt wetness	Severe: excess salt wetness	Severe: excess salt wetness	Severe: wetness	Severe: excess salt wetness
MANFRED-----	Severe: excess sodium ponding	Severe: excess sodium ponding	Severe: excess sodium ponding	Severe: ponding	Severe: excess sodium ponding
41: BEARDEN-----	Severe: too clayey	Severe: too clayey	Severe: too clayey	Severe: too clayey	Severe: too clayey
PERELLA-----	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding
42: NUTLEY-----	Moderate: too clayey	Moderate: too clayey	Moderate: too clayey	Moderate: too clayey	Severe: too clayey

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
43B: CASHEL-----	Severe: flooding wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: flooding wetness
45: WAHPETON-----	Severe: flooding	Moderate: too clayey	Moderate: flooding slope too clayey	Moderate: too clayey	Severe: too clayey
46: LADELLE-----	Severe: flooding	Slight	Slight	Slight	Moderate: flooding
CHANNEL-----	---	---	---	---	---
48: WYNDMERE-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness droughty
50B: HECLA-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
51B: HECLA-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
MADDOCK-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
51E: MADDOCK-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
53: HAMAR-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
54B: EMBDEN-----	Slight	Slight	Moderate: slope	Slight	Slight
55: TIFFANY-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
59: TOWNER-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
60: GRIMSTAD-----	Slight	Slight	Slight	Slight	Slight
62: ROCKWELL-----	Severe: flooding wetness	Moderate: percs slowly wetness	Severe: wetness	Moderate: wetness	Moderate: wetness
64: ANTLER-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
65: ANTLER-----	Severe: excess salt wetness	Severe: excess salt	Severe: excess salt wetness	Moderate: wetness	Severe: excess salt
67: GILBY-----	Severe: wetness	Moderate: percs slowly wetness	Severe: wetness	Moderate: wetness	Moderate: wetness
70: ANTLER-----	Severe: excess salt wetness	Severe: excess salt	Severe: excess salt wetness	Moderate: wetness	Severe: excess salt
TONKA-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
71: HAMERLY-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly slope wetness	Moderate: wetness	Moderate: wetness
TONKA-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
72: GARDENA-----	Slight	Slight	Slight	Slight	Slight
73: GLYNDON-----	Slight	Slight	Slight	Slight	Slight
76: BORUP-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
78B: ZELL-----	Slight	Slight	Moderate: slope	Slight	Slight
GARDENA-----	Slight	Slight	Moderate: slope	Slight	Slight
78C: ZELL-----	Slight	Slight	Severe: slope	Slight	Slight
GARDENA-----	Slight	Slight	Moderate: slope	Slight	Slight
79B: ZELL-----	Slight	Slight	Moderate: slope	Slight	Slight
LADELLE-----	Severe: flooding	Slight	Moderate: slope	Slight	Moderate: flooding
79C: ZELL-----	Slight	Slight	Severe: slope	Slight	Slight
LADELLE-----	Severe: flooding	Slight	Moderate: slope	Slight	Moderate: flooding

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79D: ZELL-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
LADELLE-----	Severe: flooding	Slight	Moderate: slope	Slight	Moderate: flooding
84: WYNDMERE-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness droughty
EMBDEN-----	Slight	Slight	Slight	Slight	Slight
86: DIVIDE-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly slope wetness	Moderate: wetness	Moderate: wetness
87: MARYSLAND-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
89: RENSHAW-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
89B: RENSHAW-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
90B: ARVILLA-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
93: INKSTER-----	Slight	Slight	Slight	Slight	Slight
94: PITS, GRAVEL---	Severe: slope small stones	Severe: slope too sandy	Severe: slope small stones	Severe: slope too sandy	Severe: slope small stones droughty
95: OJATA-----	Severe: excess salt wetness	Severe: excess salt wetness	Severe: excess salt wetness	Severe: wetness	Severe: excess salt wetness
96D: SIOUX-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope droughty
BARNES-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
97D: SIOUX-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope droughty

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98E: EDGELEY-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope depth to rock
KLOTEN-----	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Moderate: slope	Severe: area reclaim slope thin layer
99: CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
MIRANDA-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
106: DUMPS-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
PITS-----	Severe: slope small stones	Severe: slope too sandy	Severe: slope small stones	Severe: slope too sandy	Severe: slope small stones droughty
126: BEARDEN-----	Moderate: wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness
130B: SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
BUSE-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
130C: BUSE-----	Slight	Slight	Severe: slope	Slight	Slight
SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
148: WYNDMERE-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness droughty
TIFFANY-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
171: ANTLER-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness
TONKA-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
173: GLYNDON-----	Slight	Slight	Slight	Slight	Slight

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TIFFANY-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
199D: MIRANDA VARIANT-	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium slope	Slight	Severe: excess sodium
226: BEARDEN-----	Moderate: wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness
PERELLA-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
270: BEARDEN-----	Severe: excess salt	Severe: excess salt	Severe: excess salt	Moderate: wetness	Severe: excess salt
401: ABERDEEN-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Moderate: too clayey	Severe: excess sodium too clayey
NUTLEY-----	Moderate: too clayey	Moderate: too clayey	Moderate: too clayey	Moderate: too clayey	Severe: too clayey
402: EXLINE-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Moderate: too clayey wetness	Severe: excess sodium too clayey
ABERDEEN-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Moderate: too clayey	Severe: excess sodium too clayey
M-W: MISCELLANEOUS WATER-----	---	---	---	---	---
W: WATER-----	---	---	---	---	---

